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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/804,735	03/13/2001	Kannan Srinivasan	01-169	2033

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EXAMINER

JANVIER, JEAN D

ART UNIT	PAPER NUMBER
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3622

DATE MAILED: 07/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/804,735	SRINIVASAN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jean D Janvier	3622	<i>NW</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 March 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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## **DETAILED ACTION**

### *Specification*

The title of the invention should be brief, descriptive and technically accurate. See 37 CFR 1.72.

### **Status of the claims**

Claims 1-20 are currently pending in the Instant Application.

### *Claim Objections*

Claims 7 and 9 are objected to because of the following informalities:

Concerning claims 7 and 9, the term "...population..." should apparently be replaced with --visitors--.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 13 (including claim 14) is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. Indeed, the claim recites "...wherein an optimal price is determined for each group." It is unclear what **optimal price** the Applicant is referring to. The introduction of **optimal price** into the claimed invention at this stage is rather premature and hence inconsistent with the process thus disclosed. In fact, the claimed invention recites, among other things, a process for determining an optimal advertisement to be displayed to a user. For examination purpose, the claim will be broadly interpreted.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-20 are rejected under 35 USC 102(e) as being anticipated by Robinson, US Patent 5, 918, 014.

As per claims 1-20, Robinson discloses a system based on the fact that people who have shown a tendency for similar likes and dislikes in the past will show a tendency for such similarities in the future. Those people, continues Robinson, who strongly

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display such similarities with respect to a particular person ("the subject") are referred to as that person's "community." If the members of a subject's community tend to click on a particular Web ad, then it is likely that the subject will also tend to click on that ad.

Robinson further teaches a system that combines techniques for determining the subject's community (for determining which group the subject or user belongs to based on some criteria), and in the end determining which ads (determining an optimal ad that will generate a high click-through rate from users having similar profile as the community or sampled group whose interaction with a web site or the system has been recorded or logged and hence maximizing profits) to show to the user based on characteristics of the subject's community (sampled group or visitors). The information used to determine whether a given individual should be in the subject's community is gleaned from the individual's activities in the interactive medium. Means are provided to track and record a consumer's activities so all the information he generates can be tied together in a database, e.g. by means of "cookies;" or by software running on the consumer's computer, such as an in-line plug-in working in conjunction with the Web browser, or the Web browser itself. The individuals with the greatest calculated similarity become the subject's community (e.g. clusters are formed of groups of very similar consumers are formed). Ads are presented to the subject based on his community, optionally selected based on demographics associated with the community. In short, a plurality of targeted visitors' activities, including ads viewed, to a web site are monitored and based upon these visitors' reactions to one or more viewed ads, the one or more ads are then being recommended or displayed to one or more users (being in the same group or cluster as

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those sampled visitors) having similar profile (configuration data as specified by an advertiser or merchant), such as demographics, as these visitors (See abstract).

Moreover, in the interactive mode or medium on the Internet, the monitoring may comprise previously visited web sites by the targeted visitors, frequency of such visits, items purchased at online stores including their prices (purchase history), entertainment recommendation ratings provided by the visitors, ads read or clicked on by the visitors and the visitors' disinterest in an ad (**Col. 2: 32-48**).

Robinson further discloses, in one embodiment, that a new ad is displayed randomly or on a fixed schedule to a certain number of users or visitors (sampling visitors). During this "training period" for the new ad, **a certain percentage of the members of the subject's community will click on the new ad**. If this is an unusually high proportion (a percentage better or a threshold number), then there is a relatively high likelihood that the ad will be of relatively high interest to the subject or to one or more similar visitors (the ad will generate more click-throughs from one or more other visitors with similar profile). Here, statistical techniques are used to determine a probability, associated with a fixed confidence level, with which one can assume that a randomly-chosen member of the subject's community (or one or more other users) will tend to click on the ad; this probability is used as the measure of similarity. Once again, a new ad is displayed to certain visitors of the community of surfers (sampling visitors) and the system determines whether a high or low proportion of visitors have indeed read the ad and have chosen to view further information associated with the ad (weighing process or click-through). If a high proportion has chosen to view further information related to this ad, then the ad will be presented to similar users having the same profile as the sampled

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visitors who had originally interacted with the ad (Col. 3: 3-28; col. 3: 61 to col. 4: 14; See claims 1-3, 8 and 17 of the current reference).

Additionally, it is understood that once a user's or subject's community or associated group is known, then targeted ads scheduled to be displayed to the user or subject are determined based on a correlation between the group's profile and the user's profile (according to the advertiser's or merchant's specifications or criteria or received configuration data). Subsequently, a web site, where the ads will be presented, related to these targeted ads is updated accordingly to reflect the generation of these targeted ads such that the ads can be displayed to the user or subject in a future visit at the web site (associated with at least one generated ad) contingent upon the advertiser's specifications.

See fig. 1; Col. 1: 27 to col. 3: 46; col. 7: 47 to col. 8: 20; see claims 1-25 of the present reference.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-20 are rejected under 35 USC 102(e) as being anticipated by Gerace, WO 97/41673.

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As per claims 1-20, Gerace discloses a system for displaying advertisements to a user, over the Internet, based on the user's preferences (interests, habits or psychographic or behavioral profile or specification information) and demographic information. The user's psychographic profile and demographic profile are collected from the user during a registration or an enrollment or sign-up process. Thereafter, the psychographic profile is constantly refined using the user's monitored viewing habits and computer activity. Further, content of categories of interest and display format in each category are included in the psychographic profile as a result of the user's viewing or browsing activities (specification information identifying the type of information item the user is interested in). Consequently, targeted advertisements are appropriately displayed to the selected user via his computer screen, based on the user's psychographic and demographic profile, when he logs into the system to request a primary content and wherein these advertisements are constantly being modified in accordance with the user's interaction or viewing activities (viewing of agate information) or psychographic or behavioral profiles.

35; p. 33: 31 to p. 34: 9; p. 26: 7-20; p. 18: 22 to p. 19: 4; p. 30: 23 to p.31:8) (See abstract; figs. 3B-3F; p. 3: 2 to p. 5: 19; p. 13: 1-22; p. 39: 22 to p. 45: 7).

Furthermore, Gerace discloses that each advertisement from an advertiser has one or ad packages or ad objects. In each ad package or ad object 33b, there is shown a start and end dates and times and pricing for the ad package or ad object. Each ad belongs to a series of ads (ad listing). For serially displayed ads, the maximum number of views in a series to be displayed in a particular sequence, per user and per day, is also indicated. For instance, ad object 33d of fig. 5D indicates a series ID and a series sequence (i.e. the ordering of the ad in a series) while referencing to an ad series object 33c of fig. 5C,



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which shows in turn the intended targeted demographic profiles, products and services offered by the sponsor, etc. Moreover, the system compiles statistical reports that show the success or the failure of a particular ad campaign. It is further understood here if, at the end of the campaign, a particular ad was not viewed by a minimum number of viewers as agreed upon, the owner of the distribution medium might have to credit the advertiser or sponsor accordingly or continue to display the ad at no cost to the advertiser until the required minimum number of viewers viewing the ad is met. (fig. 5A-5D; page 22: 36 to page 24: 15).

A subroutine coupled to a module performs a regression analysis on the recorded history of users viewing the ads. The subroutine refines profiles of the users based on the regression analysis. Preferably, the regression analysis weights the relative importance of psychographic and/or demographic characteristics of users. Over time, the advertisements are better targeted to users. Moreover, a sponsor and user objects track how many times each advertisement information is shown, selected, and/or triggered a purchase by users. In other, words, the sponsor and user object track performance of the advertisements provided by the sponsor or advertiser and a performance routine or module, employing a regression analysis techniques, provides a performance reports to advertisers or sponsors, who may refine or adjust the weighting assigned to each advertisement object related to an advertisement based on the performance of one or more advertisements displayed to a plurality of targeted users in an effort to maximize/optimize the success of the ads displayed through the network.

Moreover, a generated and detailed packaged report provides information on individual ad packages. The required demographic profiling and demographic breakdown

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of success with respect to a targeted group and the number of hits and click-through purchases generated are included in the detailed package report. In the demographic response rates report, all ads from a sponsor or selected ones and the ad success with the sponsor-targeted demographic groups are compared or reviewed. To do so, a regression analysis is performed on the demographically targeted groups who viewed the ads and the results of the analysis are used to suggest other demographic characteristics of importance, which may help achieve the number of click-throughs and/or triggered purchases. In other words, the system modifies or refines the demographic parameters of the ad objects based on the statistical data collected from the users who were exposed to the ads, wherein, following this modification, the system re-compares the demographics of the users to the sponsor's specified and modified demographic factors to determine if one or more users are good candidates to receive the sponsor's ads.

In general, specific to desired ads, each sponsor or advertiser or merchant has one or more Ad Series Objects 33c (FIG. 5c). An Ad Series Object 33c (FIG. 5c) provides an indication of whether a given advertisement is singly or serially displayed, the category of the information, and the demographic group of users (configuration data) pre-requested by the sponsor to be shown that advertisement. In a preferred embodiment, the sponsor specifies in Ad Series Object 33c the required and/or preferred psychographic and/or demographic criteria and relative importance (e.g., weight) with respect to each criterion (configuration). Further, the sponsor specifies in Ad Series Object 33c a minimum total weight of criteria to be met by a user to qualify the user to view the advertisement or ad series. Also Ad Series Object 33c includes a reference to an Ad Package Object 33b (via an ad package identification), the hour of the day in which the

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ad/ad series is to start and end, the days of the week on which the ad/ad series is to be displayed, and the beginning and ending dates and times of the ad/ad series. Also for serially displayed advertisements, Ad Series Object 33c indicates the maximum number of views in a series to be displayed per user and per user per day. Following a display of ads to the targeted group, a Detailed Package Report provides, to the sponsor, information on individual ad packages, including showing the ads included in the package with video and audio portions intact. The demographic profiling requested and demographic breakdown of success with respect to a control group are also provided in the Detailed Package Report. Also the number of hits and click- throughs purchased and achieved are designated in the Detailed Package Report.

Further, a Demographic Response Rates Report is generated where all ad packages of a sponsor or selected ones are compared. In particular, the ad success by the sponsor-targeted demographic groups is compared. A reporting subroutine 41 of program 31 also calculates a regression on the targeted demographic groups for the ads, and the results of the regression calculation are used to suggest other demographic characteristics that are important factors in the number of click-throughs and/or number of purchases (Other demographic groups, following the reporting, may be considered in order to achieve the number of click-throughs and/or generated purchased). The advertiser may also run a complete regression report for all or certain ad packages.

In addition, to ensure that sponsors achieve the optimal result from the ads they place, program 31 combines regression analysis with the above weighting technique to achieve real-time, automatic optimization. Under this auto-targeting system, an ad package (test ad) is shown to general users (to all visitors or a sample of visitors). After a

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large number (e.g., 10,000) hits, program 31 runs a regression on a subject Ad Package Object 33b to see what characteristics are important, and who (type of user profile) the ad appeals to most. Program 31 then automatically enters weighting information based on that regression to create a targeted system and runs the advertisement (Ad Package Object 33b) again in front of this new targeted group. Program 31 then runs a regression every 10,000 hits, for example, including a group of 500 general people as a control, and adjusts the weighting. This continues until the Ad Package is exhausted (i.e., the number of hits and click throughs are achieved). Finally, in a preferred embodiment, program 31 allows sponsors to sort groups of users by demographics, to compare success rates of different user groups, advertisements, advertisement aspects, etc (P. 34: 35 to P. 35: 26).

(Page 4: 9-21; page 5: 10-19; page 9: 26 to page 10: 3; page 25: 1-20 ; page 28 : 25 to page 29: 12 ; **page 29 : 13-34**).

### Conclusion

Although the following references were not used in the Office Action, they were highly considered by the Examiner. Applicants are further directed to consult these references.

US Patent 6,567,786 to Bibelnieks discloses a method, and system for increasing the efficiency of customer contact strategies is disclosed. Customers are analyzed based upon historical criteria; a promotional plan (a group of promotion events implemented or to be implemented over a particular time period) is analyzed to determine the effect of

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each promotion event on the other promotion events in the promotional plan; and, based on this analysis, the optimal promotion stream (a specific subset of the promotional plan to be sent to customers or a group of similar customers) is determined so as to maximize the ROI of the promotional plan as a whole (See abstract).

US Patent 6, 338, 066 to Martin discloses a log of previous web-surfer behavior listing the order in which each surfer downloaded specific items at the web site, and given a meaningful classification of those same items, future surfer behavior is predicted by the present invention. The algorithm utilizes a quantitative model relating items downloaded prior to some specified event to items downloaded after that same event. When the model is applied to a new surfer's session prior to an analogous event, the present invention predicts the likely behavior of the surfer subsequent to that event. The predicted behavior is then further analyzed to derive a quantitative value for the utility of the expected behavior. By randomly selecting sample sessions from a web log, multiple models of surfer behavior can be generated. The multiple models can then be applied to a new surfer's session to produce a predicted behavior/utility distribution and thus a confidence interval for the predicted behavior/utility (See abstract).

US Patent 6, 356,879 to Aggarwal discloses a system for deriving product characterizations for products offered at an e-commerce site based on the text descriptions of the products provided at the site. A customer characterization is generated for any customer browsing the e-commerce site. The characterizations include an aggregation of derived product characterizations associated with products bought and/or

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browsed by that customer. A peer group is formed by clustering customers having similar customer characterizations. Recommendations are then made to a customer based on the processed characterization and peer group data (See abstract).

US Patent 6, 430, 539 to Lazarus discloses a predictive modeling of consumer financial behavior is provided by application of consumer transaction data to predictive models associated with merchant segments. Merchant segments are derived from consumer transaction data based on co-occurrences of merchants in sequences of transactions. Merchant vectors representing specific merchants are clustered to form merchant segments in a vector space as a function of the degree to which merchants co-occur more or less frequently than expected. Each merchant segment is trained using consumer transaction data in selected past time periods to predict spending in subsequent time periods for a consumer based on previous spending by the consumer. Consumer profiles describe summary statistics of consumer spending in and across merchant segments. Analysis of consumers associated with a segment identifies selected consumers according to predicted spending in the segment or other criteria, and the targeting of promotional offers specific to the segment and its merchants (See abstract).

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Any inquiry concerning this communication from the Examiner should be directed to Jean D. Janvier, whose telephone number is (703) 308-6287). The aforementioned can normally be reached Monday-Thursday from 10:00AM to 6:00 PM EST. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Mr. Eric W. Stamber, can be reached at (703) 305- 8469.

For information on the status of your case, please call the help desk at (703) 308-1113

Further, the following fax numbers can be used, if need be, by the Applicant(s):

After Final- 703-872-9327

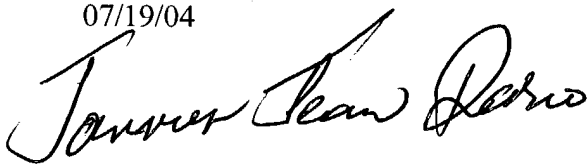
Before Final -703-872-9326

Non-Official Draft- 703-746-7240

Customer Service- 703-872-9325

**JDJ**

07/19/04

A handwritten signature in cursive script, appearing to read "Janvier Jean Denis".